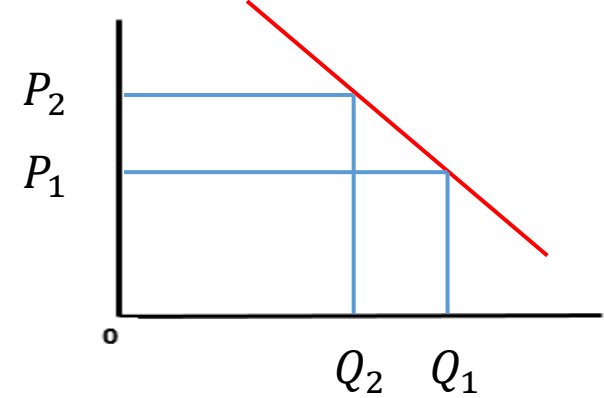


ELASTICITY- it is a measure of the responsiveness of quantity demanded or quantity supplied to one of its determinants.

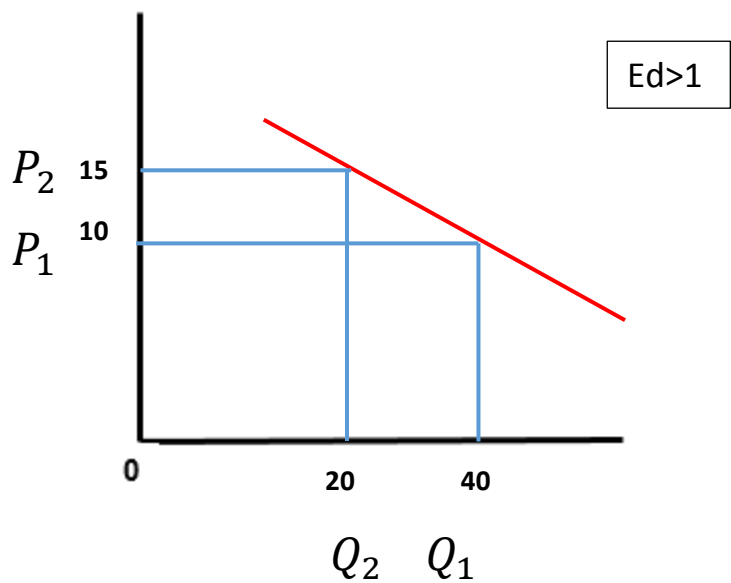
PRICE ELASTICITY OF DEMAND- it is a measure of how much the quantity demanded of a good responds to a change in price of that good.



$$E_d = \frac{\frac{Q_2 - Q_1}{(Q_2 + Q_1)/2}}{\frac{P_2 - P_1}{(P_2 + P_1)/2}}$$

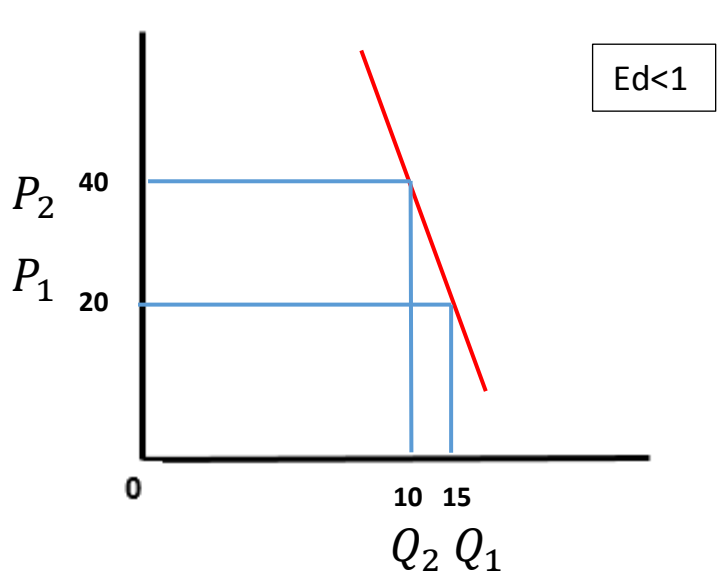
FIVE TYPES OF PRICE ELASTICITY OF DEMAND

1. **Elastic Demand**- the percentage change in quantity demanded is greater than the percentage change in price.



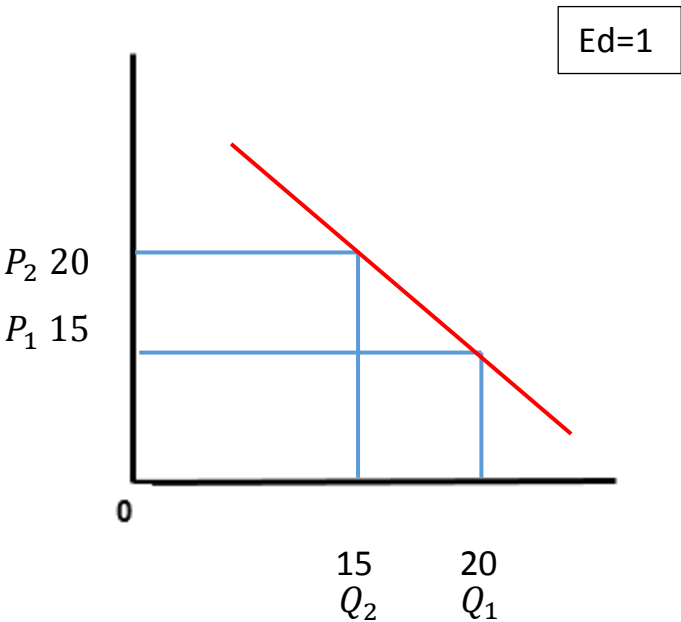
$$\begin{aligned} E_d &= \frac{\frac{20 - 40}{(20 + 40)/2}}{\frac{15 - 10}{(15 + 10)/2}} \\ &= \frac{-20}{30} \times \frac{12.5}{5} \\ &= \frac{-250}{150} \\ &= -1.67 \\ E_d &= 1.67 \end{aligned}$$

2. **Inelastic Demand**- the percentage change in quantity demanded is less than the percentage change in price.



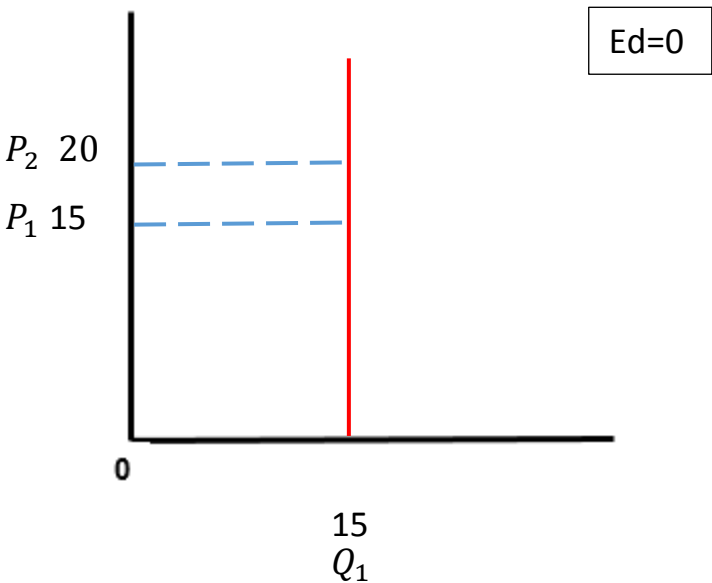
$$\begin{aligned} E_d &= \frac{\frac{10 - 15}{(10 + 15)/2}}{\frac{40 - 20}{(40 + 20)/2}} \\ &= \frac{-5}{12.5} \times \frac{30}{20} \\ &= \frac{-150}{250} \\ &= -0.6 \\ E_d &= 0.6 \end{aligned}$$

3. **Unit Elastic Demand**- the percentage change in quantity demanded is equal to the percentage change in price.



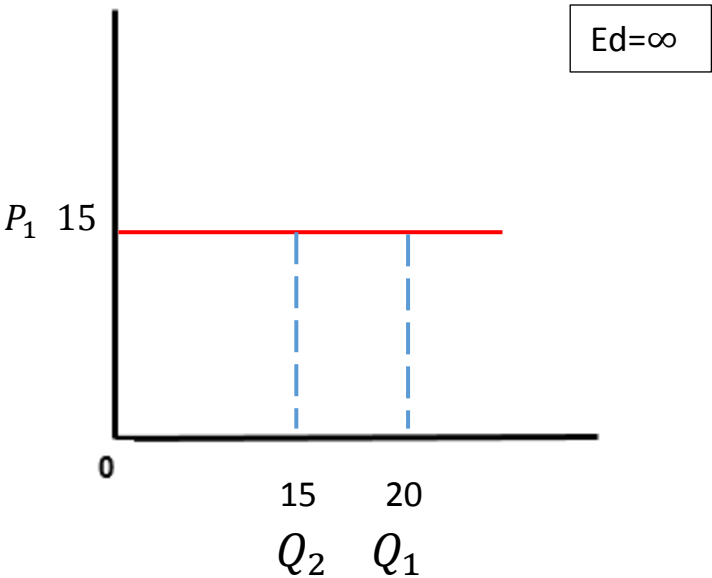
$$\begin{aligned} Ed &= \frac{\frac{15 - 20}{(15 + 20)/2}}{\frac{20 - 15}{(20 + 15)/2}} \\ &= \frac{-5}{17.5} \times \frac{17.5}{5} \\ &= \frac{-87.5}{87.5} \\ &= -1/ \\ Ed &= 1 \end{aligned}$$

4. **Perfectly Inelastic Demand**- quantity demanded does not change as price changes.



$$\begin{aligned} Ed &= \frac{\frac{15 - 15}{(15 + 15)/2}}{\frac{20 - 15}{(20 + 15)/2}} \\ &= \frac{0}{15} \times \frac{17.5}{5} \\ &= \frac{0}{75} \\ Ed &= 0 \end{aligned}$$

5. **Perfectly Elastic Demand**- a small percentage change in price causes an extremely large percentage change in quantity demanded.



$$\begin{aligned} Ed &= \frac{\frac{15 - 20}{(15 + 20)/2}}{\frac{15 - 15}{(15 + 15)/2}} \\ &= \frac{-5}{17.5} \times \frac{15}{0} \\ &= \frac{-75}{0} \\ Ed &= \infty \end{aligned}$$

Types of Market Structure Market

It is the nature and degree of competition among firms operating in the same industry. Markets are classified according to certain structural characteristics and economics have names for these different market structures.

According to Clayton (1995) the following are the different types of market structures:

Pure/Perfect Competition

It is a market situation that includes independent and well-informed buyers and sellers of exactly the same economic product. It is the first important type of market structure.

Conditions of Pure Competition

1. **The first condition** is that a large number of buyers and sellers exist. No single buyer or seller is large or powerful enough to affect the price of the product.
2. **The second condition** is that buyers and sellers deal in identical products. Buyers do not prefer one seller's merchandise over another. There is no difference in quality, no brand names, and no need to advertise.
3. **The third condition** is that each buyer and seller acts independently. As long as everyone acts independently, sellers compete against one another for the consumer's money. Buyers also compete against each other and against the seller to obtain the best price.
4. **The fourth condition** is that buyers and sellers are reasonably well-informed about the items for sale. If a store offers an item for sale at a low price, customers would know about it.
5. **The fifth condition** is that buyers and sellers are free to enter into, conduct, or get out of business. This freedom makes it difficult for a single producer in any industry to keep the market just to itself.

Monopolistic Competition

Monopolistic Competition is the market structure that has all the conditions of pure competition except for all identical products. By making its product a little different, the monopolistic competition tries to attract customers and monopolize a small portion of the market.

Characteristics of Monopolistic Competition

1. **Product Differentiation.** The characteristic that separates monopolistic competition from pure competition is called product differentiation. Although the product being sold is similar among firms, it is not identical. The differences among the products may be real or perceived and differentiation may even be extended to store location, store design, manner of payment, delivery, decorations, service and so on. There are many examples of differentiated products. Some brands of athletic footwear have special shock-absorbing soles while others have certain construction materials that reduce the weight of the footwear.
2. **Non-price Competition.** When a product is differentiated, non-price competition takes place over price competition. Non-price competition happens when advertising or other promotional campaigns try to convince buyers that the product is somehow better than another brand. Therefore, monopolistic competitors usually advertise or promote heavily to make their products seem different from everyone else's. The idea is to make the consumer think that the product is so special, or so exclusive, that nothing else really competes with it.
3. **Profit Maximization.** In monopolistic competition, similar products generally sell within a narrow price range without greatly affecting the seller's or competitors' total sales. The monopolistic aspect

of this competition is the seller's ability to raise the price within the narrow range. The competitive aspect is that if the sellers raise or lower the price just enough, customers will forget minor differences and change brands. If the firm has successfully convinced consumers that its product is better, it can charge a higher price. If it does not convince consumers, it cannot charge as much. For this reason, we seldom see a single price for athletic shoes, jeans, or other differentiated products.

Oligopoly

Oligopoly is a market situation where very large sellers of a product dominate. The product of an oligopolist may be differentiated as in the automobile industry, or standardized as in the steel industry. The exact number of firms in the industry is not as important as the ability of any single firm to cause a change in output, sales, and prices in the industry as a whole. Because of these characteristics, oligopoly is farther from pure competition than from monopolistic competition.

In many countries, many markets are already oligopolistic, and many more are becoming so. In the Philippines for example, Pepsi and Coke dominate the soft drink market. Smart and Globe dominate the wireless communications. A few large corporations dominate the other industries such as the domestic airline industry, the domestic automobile industry, and long distance telephone service.

Characteristics of Oligopoly

1. **Independent Behavior.** Because only a few firms are part of an oligopoly, whenever one firm does something, the other firms usually follow. If one airline announces discount fares, for example, all the other airlines generally match the lower prices in a matter of days, if not hours. Each oligopolist knows that the other firms in the industry have considerable power and influence. Therefore, firms tend to act together rather than let anyone upset the status quo. Sometimes the interdependent behavior takes the form of collusion. Collusion is a formal agreement to set prices or otherwise behave in a cooperative manner. One form of collusion is price-fixing. Price-fixing is agreeing to charge the same or similar prices for a product. In almost every case, these prices are higher than those determined under competition. The firms also might agree to divide the market so that each is guaranteed to sell a certain amount. Because collusion usually restrains trade, it is against the law. Even so, neither the threat of heavy fines nor jail sentences has kept some collusions from taking place.
2. **Pricing Behavior.** While an oligopolist can lower the price of its product at any time, the firm knows that other oligopolists are likely to follow suit very quickly. When one firm lowers prices, it could lead to a price war. A price war is a series of price cuts by all producers that may lead to unusually low prices in the industry. For a short period, the prices might even be lower than the cost of production for many of the firms. Raising prices is risky, too, unless the firm knows that rivals will follow. Otherwise, the higher-priced firm will lose sales to its lower-priced competitors. Because of this potential to lose profits with price changes, oligopolists generally prefer to "price changes, oligopolists generally prefer to compete on a nonprice basis. Non-price competition has the advantage of making it more difficult for rivals to reach. If an oligopolist finds a new advertising gimmick or a way to change the product itself, the other firms are at a disadvantage for a while. It takes them longer to catch up and to develop a better advertising campaign or a new physical attribute for their own products.
3. **Profit Maximization.** The oligopolist, like any other firm, maximizes its profits when it finds the quantity of output where its marginal cost is equal to its marginal revenue. Having found this level of product, the oligopolistic company proceeds to charge whatever the market will bear. The final price for the product is likely to be higher than it would be under monopolistic competition, and much higher than it would be under pure competition. Even when oligopolists do not collude formally, they still tend to act conservatively and seldom protest price hikes by their rivals.

Monopoly

Monopoly is a market structure where there is only one seller of a particular economic product that has no close substitutes. There are very few cases of pure monopolies.

Several factors prevent pure monopolies from occurring.

1. **First**, people traditionally dislike monopolies and try to outlaw them.
2. **Second**, it is usually easy to find a reasonably close substitute for most products. For example, margarine can be used instead of butter, and private automobiles can be substituted for bus, train, and airplane transportation.
3. **Third**, new technologies often introduce products that compete with existing monopolies. The development of the fax machine, for example, allowed businesses to send electronic letters that compete with the old postal service. Although no example of a pure monopoly exists, some, such as the local telephone company are considered very close. For all practical purposes, a monopolistic situation does not have to be completely pure to qualify as a monopoly. When economists talk about monopolies, they really are talking about near monopolies, or situations that are close to being pure monopoly.

Types of Monopoly

1. **Natural Monopoly** – It is a market situation where costs are minimized by having a single firm produce the product. Sometimes the very nature of an industry dictates that a society would be best served by a monopoly. It would be wasteful to have two or more competing telephone companies servicing the same area if they each needed their own telephone poles and lines. Imagine the confusion that would result if four or five competing transit company buses raced each other to the corner to pick waiting passengers. Think of what our city streets would be like if several competing water or gas companies all kept putting in or repairing water and gas lines. To avoid such problems, government often gives a public utility company permission to act as a natural monopoly. The arrangement is known as franchise. **Franchise** is an arrangement which gives a company the exclusive right to do business in a certain area without competition. By accepting such franchises, the companies also accept a certain amount of government regulation.
2. **Geographic Monopoly** - An area that is too small to support two or more businesses becomes a geographic monopoly. In a geographic monopoly, no other business that offers any competition exists in the immediate area. Sometimes a business has a monopoly because of its location. The owner of the only gas station on a lonely highway also has a type of geographic monopoly. A geographic monopoly may not always be able to maintain its status. If, for example, a lone drugstore in a small town began to make a great deal of money, another may soon come along and compete.
3. **Technological Monopoly** – Technological monopoly occurs when a firm or individual has discovered a new manufacturing technique or has invented or created something entirely new. It is a special privilege given to those who invent a new product or process. Our government fulfills this mandate by granting a patent on their product. **Patent** is an exclusive right to manufacture, use, or sell any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof. Inventions are covered for a number of years and designs can be patented for shorter periods, after which they become public property available for the benefit of all.
4. **Government Monopoly** - It is a business which the government owns and operates. Government Monopolies are found at the local and national levels. In most cases, they involve products that people need and which private industry may not adequately provide. At the local level, many towns and cities have monopolies that oversee local water use.